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| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413 | | | EXAMINER WONG, LESLIE A | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JÖRG BERNARD, HANSPETER DEGELMANN,
HOLGER JANSSEN, JÖRG KOWALCZYK and MARKWART KUNZ

Appeal 2008-3722
Application 10/088,602
Technology Center 1700

Decided: June 25, 2008

Before: FRED E. McKELVEY, *Senior Administrative Patent Judge*,
and SALLY GARDNER LANE and SALLY C. MEDLEY, *Administrative
Patent Judges*.

McKELVEY, *Senior Administrative Patent Judge*.

DECISION ON APPEAL

1 **A. Statement of the case**

2 Sudzucker Aktiengesellschaft Mannheim/Ochsenfurt ("**Sudzucker**"),
3 the real party in interest, seeks review under 35 U.S.C. § 134(a) of a
4 rejection of claims 1-12, the only claims remaining in the application on
5 appeal.

1

2 We have jurisdiction under 35 U.S.C. § 6(b).

3 The application on appeal was filed on 23 August 2002.

4 Sudzucker claims benefit of an earlier filing date based on
5 (1) PCT/EP00/08815, filed 09 September 2000, and (2) German
6 patent application 199 45 481.7, filed 22 September 1999.

7 The Examiner rejected claims 1-12 (all of the claims) under 35 U.S.C.
8 § 112 based on indefiniteness. Office Action mailed 19 September 2006,
9 page 2.

10 The Examiner also rejected claims 1-12 as being unpatentable under
11 35 U.S.C. § 103 over the prior art. Office Action mailed 19 September
12 2006, pages 2-4.

13 The following prior art was relied upon by the Examiner.

14

| <u>Name</u> | <u>Patent Number</u> | <u>Issue Date</u> |
|-----------------|----------------------|-------------------|
| Kunz | US 5,578,339 | 26 Nov. 1996 |
| Willibald-Ettle | US 6,248,386 B1 | 19 Jun. 2001 |

17

18 Willibald-Ettle ("**Willibald**") is based on PCT/EP98/00750, published
19 17 September 1998. We assume, because no one has told us otherwise, that
20 the PCT publication is the same as the U.S. application which matured into
21 the U.S. Willibald patent. It is the published PCT application which is prior
22 art.

23 In addition to the prior art cited by the Examiner, we also refer to:

| | | |
|---------|-----------------|-------------|
| 24 Rapp | US 6,562,392 B1 | 13 May 2003 |
|---------|-----------------|-------------|

3

1 Rapp is based on an application filed in the United States on 11 July
22000 which claims priority to (1) PCT/EP96/03740, filed 24 August 1996
3and (2) German application 195 32 396, filed 02 September 1995. The
4German application is mentioned in the specification (page 1) and was
5published on 06 March 1996. We refer to Rapp because it is an English
6language version of the German application. The published German
7application is the actual prior art upon which we rely.

8 The relevant prior art (PCT publication, Willibald and the German
9application publication) are prior art under 35 U.S.C. § 102(b).

10 **B. Record on appeal**

11 In deciding this appeal, we have considered *only* the following
12documents:

- 13 1. Specification, including original claims.
- 14 2. Office Action mailed 19 September 2006.
- 15 3. First Rule 132 declaration of Joerg Kowalczyk filed
1628 November 2005.
- 17 4. Second Rule 132 declaration of Joerg Kowalczyk filed
1816 August 2006.
- 19 5. The Appeal Brief filed 03 April 2007.
- 20 6. The Examiner's Answer mailed 13 November 2007
- 21 7. Reply Brief filed 11 January 2008.
- 22 8. Willibald.
- 23 9. Kunz.
- 24 10. Rapp.

5

11. Claims 1-12 on appeal as reproduced in the claim
2appendix of the Appeal Brief.

3 C. Issues

4 There are two issues on appeal.

5 The first issue is whether Sudzucker has sustained its burden of
6 showing that the Examiner erred in rejecting the claims on appeal as being
7 unpatentable under 35 U.S.C. § 112 based on indefiniteness.

8 The second issue is whether Sudzucker has sustained its burden of
9 showing that the Examiner erred in rejecting the claims on appeal as being
10 unpatentable under 35 U.S.C. § 103(a) over the prior art.

11 **D. Findings of fact**

The following findings of fact are believed to be supported by a preponderance of the evidence. To the extent that a finding of fact is a conclusion of law, it may be treated as such. Additional findings as necessary appear in the Discussion portion of the opinion.

16 The invention

17 The invention relates to "hard caramels." Specification, page 1.

18 According to Sudzucker, the "technical problem on which the present
19 invention is based ... consists of providing hard caramels that have an
20 improved stability in storage." Specification, page 2.

21 Further according to Sudzucker, the solution to the technical problem
22 is achieved by providing a hard caramel that has (1) a 1,1-GPM content of
23 52 weight % to 60 weight % (based on dry solids of the caramel) and (2) a
24 sorbitol content of 0.5 weight % to 3.5 weight %. Specification, page 2.

7

1 1,1-GPM is 1-O- α -D-glucopyranosyl-D-mannitol. Specification,
2 page 1.

3 Two other compounds that will be of interest are:

4 (1) 1-O- α -D-glucopyranosyl-D-sorbitol (1,1-GPS)¹ and

5 (2) 6-O- α -D-glucopyranosyl-D-sorbitol (1,6-GPS).

6 Specification, page 1.

7 Sudzucker tells us (specification, page 3)(emphasis added):

8 The hard caramels according to this invention are
9 surprisingly characterized by *an especially low water uptake*,
10 and they have a much lower tendency towards recrystallization
11 than *known hard caramels*. Their stability in storage is thus
12 greatly improved. The formation of crystalline areas on the
13 surface of the hard caramels as well as cloudy zones inside the
14 hard caramels is entirely or mostly prevented according to this
15 invention, or it occurs only much later.

16 In addition to 1,1-GMP and sorbitol, numerous other ingredients may
17 be present in the caramels. Specification, pages 3-5.

18 For example, according to the specification (page 5):

19 The hard caramels according to this invention may of
20 course also contain other sugar alcohols such as 1,6-GPS and
21 1,1-GPS [the two other compounds of interest mentioned
22 earlier].

8¹ On page 1 of the specification, the spelling is "glucopyranocyl." In
9 claim 10 (page 15) the spelling is "glucopyranosyl". Likewise in other parts
10 of the record the spelling is "glucopyranosyl." See, e.g., Kunz, col. 10, claim
11 13. We believe "glucopyranosyl" is the correct spelling.

13

1 See also specification, page 6.

2 Example 3 is reproduced below:

| Sample | 1,1-GPM content | Sorbitol content | Initial water content | Mannitol content | GPS content |
|--------|-----------------|------------------|-----------------------|------------------|-------------|
| 1 | 51.2 | 1.4 | 1.0 | 0.6 | 45.2 |
| 2 | 55.1 | 1.4 | 1.0 | 0.6 | 41.5 |
| 3 | 50.4 | 3.5 | 0.8 | 1.7 | 41.6 |
| 4 | 54.6 | 3.0 | 1.0 | 1.8 | 38.9 |

3

4 Example 3 describes four samples of hard caramels. Specification,
5 page 10.

6 The contents are percents based on dry solids.

7 The GPS refers to the sum of 1,6-GPS and 1,1-GPS. Specification,
8 page 8. We cannot tell from the specification the precise ratio of 1,1-GPS to
9 1,6-GPS used in the experimental work reported in Example 3.

10 Samples 2 and 4 fall within the scope of claim 1 (1,1-GPM content of
11 52% to 60%).

12 According to Sudzucker, increasing the 1,1-GPM content from
13 51% to 52-60% "led to a definite reduction in water uptake."

14 Specification, page 11.

15 Further according to Sudzucker, there is said to be a correlation
16 between (1) amount of 1,1-GPM and sorbitol and (2) reduced water uptake,
17 reduction in crystallization and improved storage stability.

15

1

First declaration

2 Sudzucker submitted a First Declaration by Joerg Kowalczyk, a
3Sudzucker employee. Declaration under 37 C.F.R. § 1.132 filed
428 November 2005.

5 Combinations of 1,1-GPM (identified as GPM), sorbitol and GPS are
6said to have been tested. We have not been told, but suspect based on what
7we see in Example 3 of the specification, that GPS is a mixture of 1,1-GPS
8and 1,6-GPS.

9 Results of various mixtures of GPM, sorbitol and GPS are reported as
10Examples A, B, and C.

11 The Samples in bold represent the invention (Samples A, F, H, L
12and N).

13 The remaining Samples use GPM and sorbitol percentages outside the
14scope of the claims on appeal.

15 Examples A, B, and C are reproduced below:

Example A:

storage conditions: 70% rel. hum. / 30°C; storage time: 3 months

| | GPM [% d.m.] | Sorbitol [% d.m.] | GPS [% d.m.] | Thickness of microcrystalline boundary layer [µm] |
|----------|-----------------|----------------------|-----------------|---|
| Sample A | 53.3 | 1.5 | 48.1 | 273 |
| Sample B | 45.4 | 1.4 | 64.1 | 416 |
| Sample C | 49.9 | 3.6 | 40.5 | 419 |

Example B:

storage conditions: 70% rel. hum. / 30°C; storage time: 6 months

| | GPM [% d.m.] | Sorbitol [% d.m.] | GPS [% d.m.] | Thickness of microcrystalline boundary layer [µm] |
|----------|-----------------|----------------------|-----------------|---|
| Sample D | 44.7 | 3.3 | 44.4 | 998 |
| Sample E | 49.0 | 3.6 | 40.5 | 727 |
| Sample F | 52.8 | 3.1 | 37.6 | 628 |
| Sample G | 45.4 | 1.4 | 48.2 | 703 |
| Sample H | 53.3 | 1.5 | 48.1 | 437 |

Example C:

storage conditions: 75% rel. hum. / 30°C; storage time: 3 months

| | GPM [% d.m.] | Sorbitol [% d.m.] | GPS [% d.m.] | Thickness of microcrystalline boundary layer [µm] |
|----------|-----------------|----------------------|-----------------|---|
| Sample I | 44.7 | 3.3 | 44.4 | 817 |
| Sample K | 49.0 | 3.6 | 40.5 | 746 |
| Sample L | 52.8 | 3.1 | 37.6 | 644 |
| Sample M | 45.4 | 1.4 | 48.2 | 728 |
| Sample N | 53.3 | 1.5 | 48.1 | 495 |

19

1 Sample A (invention) has a microcrystalline boundary layer thickness
2 of 273 while Samples B and C (outside claimed range) have thicknesses of
3 3416 and 419, respectively.

4 The thickness appears to be a function of storage conditions, including
5 at least relative humidity, temperature and storage time.

6 Readily apparent is that a composition within the scope of the claims
7 (e.g., Sample H—437 and Sample N—495) can have a thickness greater
8 than a sample not within the scope of the claims (e.g., Sample C—419).

9 Second declaration

10 Sudzucker also submitted a Second Declaration of Joerg Kowalczyk.
11 Declaration under 37 C.F.R. § 1.132 filed 16 August 2006.

12 Various experimental data is presented in the second declaration
13 related to water content before storage and water uptake for compositions
14 within the scope of the claims and compositions outside the scope of the
15 claims.

16 Samples P, Q, T and U were prepared according to the invention.

17 The remaining samples fall outside the scope of the claims on appeal.

18 Exhibit 2, Example D is reproduced below:

21

Exhibit 2

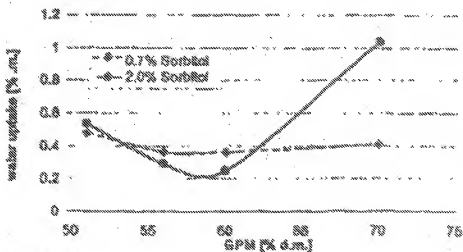
Example D

storage conditions: 70% rel. hum. / 30°C; storage time: 3 days

Table:

| | GPM [% d.m.] | Sorbitol [% d.m.] | GPS [% d.m.] | Water content before storage [g/100g] | Water uptake [% d.m.] |
|----------|-----------------|----------------------|-----------------|---|--------------------------|
| Sample G | 50.2 | 0.7 | 46.9 | 2.1 | 0.47 |
| Sample P | 53.3 | 0.7 | 42.3 | 1.9 | 0.36 |
| Sample Q | 59.9 | 0.7 | 38.3 | 2.5 | 0.37 |
| Sample R | 69.6 | 0.7 | 28.5 | 2.5 | 0.41 |
| Sample S | 50.0 | 2.0 | 46.6 | 2.5 | 0.33 |
| Sample T | 54.9 | 2.0 | 41.6 | 2.0 | 0.36 |
| Sample U | 59.0 | 2.0 | 37.8 | 2.6 | 0.25 |
| Sample V | 69.2 | 2.0 | 28.1 | 2.3 | 1.05 |

Figure 1



1

2

23

1 According to the Second Declaration, water uptake is said to show the
2 measure of stability—the lower the water uptake the better the stability. *See*
3 ¶ 11.

4 The data, reproduced in the form of a graph, tends to show generally
5 that when there is 52 to 60% 1,1-GPM, the water uptake is lower than when
6 the 1,1-GPM contents is below 52% and above 60% for two sorbitol
7 contents (0.7% and 2.0%—both within the scope of the invention).

8 Claims on appeal

9 Claim 1, which we reproduce from the claim appendix of the Appeal
10 Brief, reads:

11 A hard caramel with reduced water uptake containing 1,1-GPM
12 (1-O- α -D-glucopyranosyl-D-mannitol) in an amount of 52 wt%
13 to 60 wt% (based on the total dry solids of the hard caramel)
14 and sorbitol in an amount of 0.5 wt% to 3.5 wt%.

15 Examiner's rejections

16 The Examiner made two rejections.

17 Claims 1-12 stand rejected under the second paragraph of 35 U.S.C.
18 § 112 as being indefinite.

19 Claims 1-12 stand rejected under 35 U.S.C. § 103 as being
20 unpatentable over the prior art.

21 Prior art

22 1. Willibald

23 The significant disclosure of Willibald is best understood by reference
24 to its claims.

25 Claim 10 (col. 6) describes a sweetener containing a mixture of

25

- 1 (1) 1,1-GPM,
- 2 (2) 1,1-GPS,
- 3 (3) 1,6-GPS,
- 4 (4) mannitol, and
- 5 (5) sorbitol.

6 See also col. 2:23-36.

7 The mixture is said to be useful, *inter alia*, for making hard caramel
8 sweets. Col. 3:33.

9 2. Kunz

10 Kunz describes a "sweetener" (col. 2:17) which is said to be useful in
11 making candy (col. 12—claim 22).

12 Like Willibald, significant disclosure appears in the claims.

13 Claim 3 (col. 10) describes a sweetener containing:

- 14 (1) 30-70% 1,1-GPM,
- 15 (2) 2-20% 1,1-GPS, and
- 16 (3) 10-50% 1,6-GPS.

17 Claim 6 (col 11) calls for the sweetener of claim 3 which contains
18 small amounts of mannitol, sorbitol, hydrogenated or non-hydrogenated
19 oligosaccharides or mixture thereof.

20 Claim 22 (col. 12) calls for candy containing the sweetener of claim 3.

21 According to Kunz, sorbitol is known to suppress crystallization—but
22 can lead to sticky candy. Col. 1:50-52.

23 With respect to the "small" amount of sorbitol mentioned in the
24 claim 6, the specification states that it is advantageous to reduce by

27

1 chromatographic separation the sorbitol content to 5 to 0%, preferably to 1
2 to 0%. Col. 3:67 to col. 4:3.

3 According to Kunz a mixture of sorbitol, mannitol, 1,1-GPM,
4 1,1-GPS, and 1,6-GPS which results after chromatographic separation can
5 be used as a sweetener in liquid or dry form. Col. 3:39-42.

6 3. Rapp

7 Rapp is no stranger to Sudzucker.

8 Rapp is a Sudzucker patent.

9 Rapp was called to our attention by virtue of its being cited in the
10 specification.

11 In the specification, Rapp is mentioned in the form of German Patent
12 application 195 32 396 C2 on page 1 (four lines from the bottom) of the
13 specification.

14 Rapp claims priority based on the German patent application. *See* the
15 left column on the cover page.

16 Rapp claims to have discovered that water uptake (something
17 Sudzucker seeks to avoid) is a function of at least the ratio of 1,1-GPM and
18 1,6-GPS present in a sweetener.

19 Claim 1 (col 16) describes a hard caramel having a ratio of essentially
20 1 to 43% or 57 to 99% of a mixture containing 1,1-GPM and 1,6-GPS.

21 Rapp says that a microcrystalline boundary layer is formed from
22 1,1-GPM on the surface of the hard caramel which is said to lead to reduced
23 water intake from the atmosphere. Col. 12:56-59.

24 In addition, 1,1-GPM enriched hard caramels are said to exhibit an
25 increased temperature stability. Col. 12:61-65.

29

1 Sorbitol and mannitol may be present in the sweetener mixture.

2 Col. 5:55. We know from Kunz that sorbitol is known to suppress

3 crystallization—a feature which Sudzucker says is desirable in a hard
4 caramel.

5 Rapp Fig. 10 reproduced below:

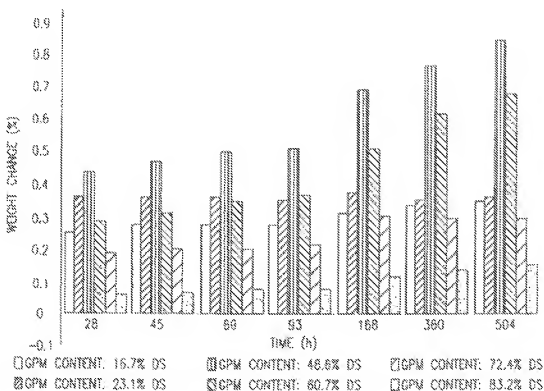


FIG. 10

6

7 Fig. 10 shows water uptake as a function of 1,1-GPM content (16.7%
8 to 83.2%) and exposure time in hours (h) from 28 to 504 hours.

9 The exposure is described as occurring at 70% relative humidity at
10 25°C with the water content of the caramels being 1.5%. Col. 16:27-29.

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1 A caramel having a 1,1-GPM content of 48.6% and 60.7% (both just
2 outside the scope of claim 1 on appeal) had a water uptake of about 0.37%
3 at 45 hours (slightly less than 2 days) and 69 hours (slightly less than 3
4 days). According to Fig. 2 of the Second Declaration, caramels within the
5 scope of the claim 1 on appeal also had water uptake of about 0.37% after 72
6 hours (3 days). See Fig. 2 where the 1,1-GPM content is about 55% (for
7 72.0% sorbitol) and about 58% (for 0.7% sorbitol). Sudzucker has not
8 achieved a "new" low water uptake.

9 **E. Principles of law**

10 A claimed invention is not patentable if the subject matter of the
11 claimed invention would have been obvious to a person having ordinary
12 skill in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct.
13 1727 (2007); *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

14 Facts relevant to a determination of obviousness include (1) the scope
15 and content of the prior art, (2) any differences between the claimed
16 invention and the prior art, (3) the level of skill in the art and (4) any
17 relevant objective evidence of obviousness or non-obviousness. *KSR*, 127
18 S. Ct. at 1734; *Graham*, 383 U.S. at 17-18.

19 A person having ordinary skill in the art uses known elements and
20 process steps for their intended purpose. *Anderson's-Black Rock, Inc. v.*
21 *Pavement Salvage Co.*, 396 U.S. 57, 58 (1969) (radiant-heat burner used for
22 its intended purpose in combination with a spreader and a tamper and
23 screed); *Dunbar v. Myers*, 4 Otto (94 U.S.) 187, 195 (1876) (ordinary
24 mechanics know how to use bolts, rivets and screws and it is obvious that
25 any one knowing how to use such devices would know how to arrange a

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1 deflecting plate at one side of a circular saw which had such a device
2 properly arranged on the other side).

3 An inventor must show that the results the inventor says the inventor
4 achieves with the invention are actually obtained with the invention and it is
5 not enough to show results are obtained which differ from those obtained in
6 the prior art—any difference must be shown to be an unexpected difference.
7 *In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972). *See also In re Geisler*,
8 116 F.3d 1465, 1469-70 (Fed. Cir. 1997) (party asserting unexpected results
9 has the burden of proving that the results are unexpected).

10 A showing of unexpected results generally must be commensurate in
11 scope with the breadth of the claimed invention. *In re Greenfield*, 571 F.2d
12 1185, 1189 (CCPA 1978). *See also In re Harris*, 409 F.3d 1339, 1344 (Fed.
13 Cir. 2005).

14 The showing must be clear and convincing. *McClain v. Ortmyer*,
15 41 U.S. 419, 429 (1891) (conclusive evidence needs to show invention
16 performs some new and important function not performed by the prior art);
17 *In re Heyna*, 360 F.2d 222, 228 (CCPA 1966) (applicant required to submit
18 clear and convincing evidence to support an allegation of unexpected
19 property). *See also In re Passal*, 426 F.2d 409, 412 (CCPA 1970) and *In re*
20 *Lohr*, 317 F.2d 388, 392 (1963) (conclusive proof of unexpected results not
21 submitted by applicant).

22 Where a limitation in a claim has multiple possible definitions, the
23 limitation can be indefinite. *See Genentech, Inc. v. Wellcome Foundation*
24 *Ltd.*, 29 F.3d 1555, 1563-64 (Fed. Cir. 1994).

35

1 **F. Discussion**

2 Examiner's § 112 rejection

3 (1)

4 The Examiner had a problem with Sudzucker's language "with
5reduced water uptake." So do we.

6 The Examiner found that the specification does not define the phrase
7"reduced water uptake." Examiner's Answer, page 3; Office Action mailed
819 September 2006, page 2.

9 The Examiner further found that Sudzucker does not compare its
10"reduced water uptake" to "any sort of standard." Examiner's Answer,
11page 4.

12 The Examiner still further found that water uptake is characterized in
13the specification as "especially low water uptake." Examiner's Answer,
14page 4; specification 3. Sudzucker also says the caramels of its invention
15"have a much lower tendency towards recrystallization than *known* hard
16caramels." Specification, page 3 (emphasis added).

17 Sudzucker counters the Examiner's findings with an argument of
18counsel that a "skilled artisan can readily determine whether a hard caramel
19has the recited property." Reply Brief, page 2. Counsel did not favor us
20with support in the record for this post-filing date afterthought.

21 Moreover, according to counsel for Sudzucker, the reduced water
22uptake is determined by comparing hard caramels within the scope of the
23claim to those outside the scope of the claim. Reply Brief, page 2.

24 "An essential purpose of patent examination is to fashion claims that
25are precise, clear, correct, and unambiguous. Only in this way can

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uncertainties of claim scope be removed, as much as possible, during the administrative process." *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

3 The limitation before us is not precise, clear and unambiguous.

4 The Examiner's finding that the phrase in question is not explicitly
5 defined in the specification is more than supported by the evidence.

6 So what does the phrase mean in context?

7 In the specification, some testing data is said to be based on a relative
8 humidity of 80% at 25° C. Specification, pages 9 and 11. But, the
9 specification does not say that a relative humidity of 80% at 25° C is the
10 standard to be used by Sudzucker for this invention or those skilled in the art
11 in general. Furthermore, the record showed that various test conditions are
12 used.

13 In the First Declaration, we note that Sudzucker presented Examples
14 A, B, and C. Each used different storage standards:

15 (1) Example A 70% relative humidity at 30°C for 3 months.

16 (2) Example B 70% relative humidity at 30° C for 6 months.

17 (3) Example C 75% relative humidity at 30° C for 3 months.

18 In the Second Declaration, Sudzucker based its Example D data on
19 tests at 70% relative humidity at 30° C for 3 days.

20 Rapp describes data based on testing at 70% relative humidity at
21 25°C. Col. 16:27-29.

22 We have not been able to find that there is a standard water uptake test
23 used by either Sudzucker or those skilled in the art in the hard caramel art.
24 The relative humidity and temperature conditions seem to vary from case to
25 case.

39

1

(2)

2 We decline to read the 80% relative humidity at 25° C disclosure in
3Example 4 of the specification into the claim. Why? One straightforward
4reason is that it would have been so easy for Sudzucker to have added that
5"disclosure" into the claims.

6 There is a second reason for not reading any particular relative
7humidity or temperature into the claims or interpreting the phrase "reduced
8water uptake" to have a specific meaning. Counsel for Sudzucker has
9argued that the reduced water uptake is to be determined from a comparison
10of water uptake of compositions within the claims vis-à-vis water uptake
11of compositions "outside" the scope of the claims. Reply Brief, page 2.
12A review of the evidence shows that the argument goes no where. Rapp
13describes embodiments "outside" the scope of the claims on appeal that can
14have water uptake levels as low or lower than embodiments within the scope
15of the claims. Compare Fig. 2 in the Second Declaration with Fig. 10 of
16Rapp. For example, after 28 hours a Rapp composition with 16.7%
171,1-GMP had a water uptake of less than 0.30% whereas some embodiments
18within the scope of the claims have a water uptake of more than 0.30%.

19 By leaving out a relative humidity and temperature standard,
20Sudzucker would leave the precise scope of the claims ambiguous only to be
21resolved in expensive infringement litigation. However, to await litigation
22compromises the patent system, *Graham v. John Deere Co. of Kansas City*,
23383 U.S. 1, 18 (1966) (to await litigation is to debilitate the patent system),
24and is the very sort of thing which *In re Zletz* counsels a need to avoid.

41

1 Sudzucker has failed to show that the Examiner erred in rejecting the
2 claims as being indefinite.

3 Ordinarily when a claim is held to be indefinite, we do not reach
4 alternative obviousness rejections. *Cf. In re Steele*, 49 CCPA 1295, 305
5 F.2d 859 (CCPA 1962); *In re Wilson*, 57 CCPA 1029, 424 F.2d 1382
6 (CCPA 1970).

7 In this case, we nevertheless believe we can also address the
8 obviousness issue.

9 Examiner's prior art rejection

10 The prior art makes manifest that mixtures of 1,1-GPM, 1,1-GPS,
11 1,6-GPS, and sorbitol are routinely used in making sweeteners.

12 Thus, we can easily find that Sudzucker is using known ingredients
13 for essentially their intended purpose.

14 The Examiner found that the difference between the claimed subject
15 matter and the prior art is that the prior art does not describe the specific
16 amounts of 1,1-GPM and sorbitol claimed.

17 However, Kunz describes sweeteners having 30% to 70% 1,1-GPM.
18 See col. 10 (claim 3). Claim 4 describes sweeteners having 35% to 60%
19 1,1-GPM. Claim 5 narrows the amount of 1,1-GPM to 45% to 60%. A
20 range of 45% to 60% is fairly close to the 52% to 60% range of Sudzucker's
21 broadest claim as well as the ranges set out in the dependent claims.

22 Claim 6 (col. 11) reveals that the sweetener of claim 5 can have small
23 amounts of sorbitol. What are small amounts of sorbitol? According to
24 Kunz, small amounts appear to be 0 to 5%, preferably 0 to 1%. Col. 4:1.

43

1 Willibald also describes sweeteners having both 1,1-GPM and
2 sorbitol.

3 As a whole, the prior art suggests that Sudzucker has discovered a
4 composition having a range of ingredients within a range of ingredients
5 described in the prior art. Under those circumstances, the Examiner had a
6 adequate basis for finding the claimed invention to be *prima facie* obvious.
7 *In re Harris*, 409 F.3d 1339, 1341 (Fed. Cir. 2005); *In re Peterson*, 315 F.3d
8 1325, 1329 (Fed. Cir. 2003). Also supporting the Examiner's finding is the
9 fact that 1,1-GPM and sorbitol appear to be used by Sudzucker for their
10 known and intended purpose. *KSR*, 127 S. Ct. at 1739; *Anderson's Black*
11 *Rock, Inc. v. Pavement Salvage Co., Inc.*, 396 U.S. 57 (1969).

12 Sudzucker reasons that that the Examiner's case is rebutted by
13 evidence of unexpected results. We disagree.

14 At the outset, we find the data in the specification and in the First and
15 Second Declarations to be far from clear and convincing.

16 No data presents results based on experiments with a composition
17 having just 1,1-GPM and sorbitol. All compositions tested had other non-
18 claimed compounds present, most notably 1,1-GPS and 1,6-GPS.

19 Accordingly, Sudzucker has failed to show that it is the claimed
20 invention, and not the non-claimed compounds, that results in its supposed
21 "surprising" and "unexpected" results. *In re Klosak, supra*.

22 On this record, there is also a basis for questioning what effect the
23 presence of 1,1-GPS and 1,6-GPS in the compositions described by
24 Sudzucker may have on water uptake. It is not clear to us what ratio of
25 1,1-GPS to 1,6-GPS was used in any tested composition. In other words, we

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I do not see how a person skilled in the art could reproduce the experimental work reported in the specification and the declarations. An inability to repeat experimental work relied upon for non-obviousness does not bode well for according that experimental work controlling weight.

5 The ratio of 1,1-GPM to 1,6-GPS and the ratio of 1,1-GPS to 1,6-GPS would appear to have an effect on water uptake. *See* Rapp.

7 Given these technical issues, it is not apparent to us how the "showings" can be considered persuasive or how they establish unexpected results commensurate in scope with the breadth of the claims. The Examiner had the same problem and we fully understand why.

11 We next have to ask why the results shown should be deemed to be unexpected. *First*, Sudzucker has not achieved a new low in water uptake. Fig. 10 of Rapp confirms this fact. Thus, prior art compositions outside the scope of the claim achieve water uptake levels which can be lower than the water uptake levels shown to have been achieved by Sudzucker. *Second*, since water uptake appears to be a function of the ratio of 1,1-GPM to 1,6-GPS, it is not clear that the results are unexpected at all. On this record, we cannot conclude that it is solely the combination of 1,1-GPM and sorbitol which leads to the Sudzucker's alleged improvement. Since there appear to be other variables in play, Sudzucker has failed to make out its case. The Examiner found that the results appear to be no more than expected. We understand why. We hold that Sudzucker has failed to establish that the Examiner erred in declining to give controlling weight to the First and Second Declarations.

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Other arguments

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We have considered Sudzucker's remaining arguments and find none that warrant reversal of the Examiner's rejections. *Cf. Hartman v. Nicholson*, 483 F.3d 1311, 1315 (Fed. Cir. 2007).

5

G. Conclusions of law

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Sudzucker has not sustained its burden on appeal of showing that the Examiner erred in rejecting the claims on appeal as being indefinite.

8

Sudzucker has not sustained its burden on appeal of showing that the Examiner erred in rejecting the claims on appeal as being unpatentable under 35 U.S.C. § 103(a) over the prior art.

11

On the record before us, Sudzucker is not entitled to a patent containing claims 1-12.

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H. Decision

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Upon consideration of the appeal, and for the reasons given herein, it is

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ORDERED that the decision of the Examiner rejecting claims 1-12 under 35 U.S.C. § 112 as being indefinite is *affirmed*.

18

FURTHER ORDERED that the decision of the Examiner rejecting claims 1-12 under 35 U.S.C. § 103 over the prior art is *affirmed*.

20

AFFIRMED

qsg

Appeal 2008-3722
Application 10/088,602

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cc (via First Class mail)

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